REMARKS

Claim 46 is amended. No claims are added or canceled. Claims 25-57 are now pending in the application. Each issue raised in the Office Action mailed August 29, 2008 is addressed hereinafter.

I. ISSUES NOT RELATING TO PRIOR ART

A. 35 U.S.C. § 101 – CLAIM 46

Claim 46 is rejected under 35 U.S.C. § 101 for allegedly failing to establish a statutory category of invention. Present Claim 46 is free of this issue. Removal of this rejection is respectfully requested.

II. ISSUES RELATING TO PRIOR ART

A. 35 USC § 103 (a) – *CONTA* AND *SINGH*

Claims 25-30, 34, 36-41, 45-52, and 56 are rejected under 35 U.S.C. § 103 (a) as allegedly being unpatentable over Conta et al., U.S. Patent Pub. No. 2005/0086367 A1 (hereinafter *Conta*) in view of Singh et al., U.S. Patent Pub. No. 2005/0108315 (hereinafter *Singh*). The rejection to each of the pending claims is respectfully traversed hereinafter.

Claim 25

Claim 25 recites, *inter alia*:

> determining whether a new encapsulation chain should be created, on a network element, for a particular virtual interface;
> wherein determining whether a new encapsulation chain should be created comprises:
> determining whether at least one physical port of a particular card of the network element **(a) is configured to send data packets of a type that would be produced by an encapsulation chain for the particular virtual interface and (b) can send data packets toward a destination associated with the particular virtual interface**;
> determining whether a new decapsulation chain should be created, on the network element, for the particular virtual interface;
> wherein determining whether a new decapsulation chain should be created comprises:
> **determining whether at least one physical port of a particular card of the network element is configured to receive data packets of a type that would be processed by a decapsulation chain for the particular virtual interface**;

in response to determining that a new encapsulation chain should be created, on the network element, for the particular virtual interface, creating, on the network element, a new encapsulation chain for the particular virtual interface; and
in response to determining that a new decapsulation chain should be created, on the network element, for the particular virtual interface, creating, on the network element, a new decapsulation chain for the particular virtual interface.
(Emphasis added)

Conta and *Singh*, taken individually or in combination, fail to disclose a number of the above-recited features of Claim 25.

The Office Action analogizes the encapsulation engine and the decapsulation engine of *Conta* to the new encapsulation chain and the new decapsulation chain of Claim 25, respectively. The Office Action argues that *Conta* at paragraphs 33, 58, and 81 and FIGs. 2-4 discloses "determining whether a new decapsulation chain should be created comprises: determining whether at least one physical port of a particular card of the network element is configured to receive data packets of a type that would be processed by a decapsulation chain for the particular virtual interface", as featured in Claim 25.

However, these excerpts only describe how a received packet is processed in *Conta*. At best, these excerpts describe decapsulating the packet using an already created decapsulation engine. The entire *Conta* reference is devoid of any determining steps that resemble those involved in determining whether a new decapsulation chain should be created, as recited in Claim 25. In fact, the decapsulation engine of *Conta* is scantly mentioned a total of three times in paragraphs 62-64 of *Conta*. None of these mentions describes how to determine whether a new decapsulation engine should be created, much less determining whether at least one physical port of a particular card of the network element is configured to receive data packets of a type that would be processed by a decapsulation chain for the particular virtual interface, as claimed.

Furthermore, as *Conta* only describes that a decapsulation engine is invoked to process a packet that is received from a tunnel, by the time the decapsulation engine is invoked to process the packet for transmission, the packet presumably has already been received at a physical port of the *Conta* system. It would be senseless for *Conta* to determine at that point whether at least

one physical port of a particular card of the network element is configured to receive data packets of a type that would be processed by a decapsulation chain for the particular virtual interface.

The Office Action also argues that *Conta* at paragraphs 33, 58, and 81 and FIGs. 2-4 discloses "determining whether a new encapsulation chain should be created comprises: determining whether at least one physical port of a particular card of the network element (a) is configured to send data packets of a type that would be produced by an encapsulation chain for the particular virtual interface and (b) can send data packets toward a destination associated with the particular virtual interface", as featured in Claim 25.

However, these excerpts only describe how a packet is processed for transmission in *Conta*. At best, these excerpts describe encapsulating the packet using an already created encapsulation engine. *Conta* is devoid of the determining steps, as recited in Claim 25, involved in a step of determining whether a new encapsulation chain should be created. The encapsulation engine of *Conta* is only mentioned four times in *Conta* at paragraphs 55, 56, 58, and 59. None of these paragraphs describes determining whether a new encapsulation engine should be created, much less determining whether a new encapsulation chain should be created that comprises determining whether at least one physical port of a particular card of the network element (a) is configured to send data packets of a type that would be produced by an encapsulation chain for the particular virtual interface and (b) can send data packets toward a destination associated with the particular virtual interface.

The Office Action further argues that "a tunnel endpoint is inherently created in order to establish communication via a tunnel, and based on the particular endpoint type will determine whether an encapsulation engine should be created, and will create one if the tunnel interface is a transmitting interface." The Office Action contends that "a tunnel endpoint is inherently created in order to establish communication via a tunnel, and based on the particular endpoint type, such as sending or receiving, will determine whether a decapsulation engine should be created, and will create one if the tunnel interface is a receiving interface." These arguments and contentions

are incorrect.

Even if a tunnel endpoint is inherently created, *Conta* does not necessarily determine whether an encapsulation engine, or a decapsulation engine, should be created when such a tunnel endpoint is created, and does not necessarily or inherently perform all the specific steps recited in Claim 25. The Office Action adduces no factual support or evidence for the assertion of what *Conta* allegedly will do.

Singh is likewise devoid of any mention of these above-discussed features of Claim 25 that are missing in *Conta*.

Based on at least the reasons given above, Claim 25 is patentable over *Conta* in view of *Singh*. Reconsideration and removal of the rejection to Claim 25 is respectfully requested.

Claims 36, 46, and 47

Claims 36, 46, and 47 each recite similar features as those discussed above with respect to Claim 25. Therefore, Claims 36, 46, and 47 are patentable for at least the same reasons discussed above as to Claim 25.

Claims 26-30, 34, 37-41, 45, and 48-52

Claims 26-30, 34, 37-41, 45, and 48-52 depend from, and hence, incorporate all of the limitations of Claim 25, 36, 46, or 47. These claims also recite further limitations that render them patentable over the cited references. Applicant submits that Claims 26-30, 34, 37-41, 45, and 48-52 are patentable for at least the reasons given above in connection with Claim 25, 36, 46, or 47.

B. 35 USC § 103 (a) – *CONTA*, *SINGH*, AND *TUNIMAN*

Claims 31-33, 35, 42-44, 53-55, and 57 are rejected under 35 U.S.C. § 103 (a) as allegedly being anticipated by *Conta* in view of *Singh*, further in view of Tuniman et al., U.S. Patent No. 6,507,874 B1 (hereinafter *Tuniman*). The rejection to each of the pending claims is respectfully traversed hereinafter.

Claim 57

Claim 57 recites similar features as those discussed above with respect to Claim 25.

Tuniman fails to disclose those features of Claim 25 that are missing in *Conta* and *Singh*. Therefore, Claim 57 is patentable for at least the same reasons discussed above as to Claim 25.

Claims 31-33, 35, 42-44, and 53-55

Claims 31-33, 35, 42-44, 53-55 depend from, and hence, incorporate all of the limitations of Claim 25, 36, 46, or 47. *Tuniman* fails to disclose those features of Claim 25, 36, 46, or 47 that are missing in *Conta* and *Singh*. These claims also recite further limitations that render them patentable over the cited references. Applicant submits that Claims 31-33, 35, 42-44, 53-55 are patentable for at least the reasons given above in connection with Claim 25, 36, 46, or 47.

III. CONCLUSIONS & MISCELLANEOUS

For the reasons set forth above, all of the pending claims are now in condition for allowance. The Examiner is respectfully requested to contact the undersigned by telephone relating to any issue that would advance examination of the present application.

A petition for extension of time, to the extent necessary to make this reply timely filed, is hereby made. If applicable, a check for the petition for extension of time fee and other applicable fees is enclosed herewith. If any applicable fee is missing or insufficient, throughout the pendency of this application, the Commissioner is hereby authorized to charge any applicable fees and to credit any overpayments to our Deposit Account No. 50-1302.

Respectfully submitted,
HICKMAN PALERMO TRUONG & BECKER LLP

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/ZhichongGu#56543/
Zhichong Gu
Reg. No. 56,543

2055 Gateway Place Suite 550
San Jose, California 95110-1093
Telephone No.: (408) 414-1080
Facsimile No.: (408) 414-1076